UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,361	09/16/2003	Fumitaka Goto	00862.023234.	9417

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER
DHINGRA, PAWANDEEP

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

		Application No.	Applicant(s)
Office Action Summary		10/662,361	GOTO ET AL.
		Examiner	Art Unit	
		Pawandeep S. Dhingra	2625	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>*16 September 2003*</u>.

2a) ☐ This action is **FINAL.**   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>*1-11*</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>*1-11*</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>*16 September 2003*</u> is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

        1. ☒ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____.

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>*2/28/2005, 8/16/2004*</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

DETAILED ACTION

Drawing Objections

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the complete features of claim 1 (e.g. corrector, processor, recorder), 5, 6 (e.g. thumbnail) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

   The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 10, is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

   Claim 10, recites the limitations "computer program product storing a computer readable medium". This limitation is unclear and unknown to the one with the ordinary skill in the art.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

   Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 9-10 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 9-10 are drawn to functional descriptive material NOT claimed as residing on a computer readable medium.

   MPEP 2106.IV.B.1(a) (Functional Descriptive Material) states:

   "Data structures not claimed as embodied in a computer-readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer."

   "Such claimed data structures do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized."

Claims 9-10, while defining a computer program product does not define a "computer-readable medium" and is thus non-statutory for that reasons. A computer program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claims 9 & 10 to recite "a computer readable medium storing a computer program comprising computer executable instructions for causing the computer to execute" in order to make the claims statutory.

"In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." - MPEP 2106.IV.B.1(a)

Examiner Notes

Examiner cites particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that, in preparing responses, the applicant fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C.102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3, and 5-11 are rejected under 35 U.S.C. 102(b) as being anticipated by

Uekusa et al., US 2001/0013953.

Re claim 1, Uekusa et al. discloses an image processing apparatus (see figure 1)

comprising: a corrector, arranged to apply, to image data (see claim 7), first correction

according to a feature amount of an entire image (see abstract), and second correction

(i.e. color matching) which is different from the first correction (see abstract, note that

color matching step is performed on the corrected image data and is different from first

step of correction image input data); a processor (see figure 2 and claim 7), arranged to

apply an image process required to print on a print medium to the image data output

from said corrector (see claim 7 and figures 1-3; paragraphs 0031-0037); and a

recorder, arranged to print an image on the print medium on the basis of the image data

that has undergone the image process (see figures 1-3, 0031-0037), wherein said

corrector acquires the feature amount before execution of the first correction and before

execution of the second correction is completed for the entire image data (see claim 7,

and abstract).

Re claim 2, Uekusa et al. further discloses corrector acquires the feature amount from the entire image data or partial data (see abstract).

Re claim 3, Uekusa et al. further discloses corrector acquires the feature amount from the entire image data or a representative value group of partial data (see abstract, and figure 12).

Re claim 5, Uekusa et al. further discloses corrector acquires the feature amount from data appended (i.e. attached) to the image data (see abstract, and figure 8).

Re claim 6, Uekusa et al. further discloses the data appended to the image data includes at least one of the feature amount and thumbnail image of the image data (see figure 8, and paragraphs 0103-0111).

Re claim 7, Uekusa et al. further discloses the feature amount includes at least one of histograms associated with some colors (see paragraph 0042, and figure 10), information associated with some colors that represents a highlight part (see figure 11, paragraph 0025), information associated with some colors that represents a shadow part (see paragraph 0025), and information associated with hue and saturation in the entire image data or partial data (see paragraphs 0072-0074).

Regarding claims 8-10, they are interpreted and thus rejected for the reasons set forth above in the rejection of claim 1, since claims 8-10 disclose a method, a computer program (a program product), and a computer readable medium of instructions for carrying out the method that corresponds to the image processing system of claim 1,

thus the method is inherent and it simply provides functionality for the structural

implementation found in image processing system claim 1.

Re claim 11, Uekusa et al. further discloses a printer (see figure 1) comprising:

an interface, arranged to input image data from a memory card (see figure 1, and steps

S10-S90 in figure 2); and a processor (see figure 1), arranged to perform a first process

for performing correction, which is based on the amount of characteristic of an image

expressed by the input image data, on the image data (see figures 2-3, abstract, and

paragraphs 0031-0067, and claim 7), and a second process (i.e. color matching) for

performing predetermined processing on the image data, wherein the amount of the

characteristic is extracted before the first and second processes are performed (see

abstract and claim 7).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as
> set forth in section 102 of this title, if the differences between the subject matter sought to be
> ·patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

8. Claim 4 is rejected under 35 U.S.C. 103 as being unpatentable over Uekusa et

al., US 2001/0013953 in view of Tsuchiya et al., US 6,980,326.

Re claim 4, Uekusa fails to further disclose the representative value group includes at least one of pixel values regularly selected from the image data, pixel values randomly selected from the image data, pixel values of reduced-scale image data of the image data, and DC component values of a plurality of pixels of the image data.

However, Tsuchiya et al. discloses the representative value group includes at least one of pixel values regularly selected from the image data (see figure 5), pixel values randomly selected from the image data (see figure 5, note that any pixel value can be selected as notable pixel, randomly from the set of values), pixel values of reduced-scale image data of the image data (see figure 7), and DC component values of a plurality of pixels of the image data (see figure 3; column 5, lines 22-31, and column 11, line 65 – column 12, line 5, note that the DC component consists of Y, Cr, and Cb data).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention to modify the image processing method of apparatus for image correction as disclosed by Uekusa to include the image correction method taught by Tsuchiya for the benefit of providing "an image process method capable of achieving high-level color noise reduction without deteriorating apparent (or seeming) resolution for a color signal" as taught by Tsuchiya at column 2, lines 47-52.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pawandeep S. Dhingra whose telephone number is 571-270-1231. The examiner can normally be reached on M-F, 9:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Lamb can be reached on 571-272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TWYLER LAMB
SUPERVISORY PATENT EXAMINER

Pd
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